

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) An HVAC system for a motor vehicle comprising:

at least one ultraviolet light source for treating microorganisms within the HVAC system; and

a controller which is communicatively coupled to at least one ultraviolet light source and which selectively activates and deactivates the at least one ultraviolet light source;

wherein the controller monitors a state of a vehicle component that affects a vehicle power supply, and selectively activates and deactivates the at least one ultraviolet light source, based on the state of the vehicle component.

2. (original) The HVAC system of claim 1 wherein the at least one ultraviolet light source comprises a bulb for emitting ultraviolet light in the UV-C spectrum, effective to kill microorganisms.

3. (original) The HVAC system of claim 2 wherein the ultraviolet light emitted by the at least one ultraviolet light source is approximately 254 nm in wavelength.

4. (currently amended) The HVAC system of claim 1 further comprising a controller which is communicatively coupled to the at least one ultraviolet light source for selectively activating and deactivating the at least one ultraviolet light source wherein the vehicle component is an ignition switch and wherein the state of the vehicle component comprises an ignition switch position.

5. (currently amended) The HVAC system of claim 1 ~~4 further comprising at least one sensor for monitoring a parameter, the sensor being communicatively coupled to the controller and adapted to provide signals to the controller for selectively activating and deactivating the at least one ultraviolet light source wherein the vehicle component is an engine.~~
6. (original) The HVAC system of claim 1 wherein the at least one ultraviolet light source is operatively disposed within at least one air inlet of the HVAC system.
7. (original) The HVAC system of claim 1 wherein the at least one ultraviolet light source is operatively disposed within a pre-blower portion of the HVAC system.
8. (original) The HVAC system of claim 1 wherein the at least one ultraviolet light source is operatively disposed within a post-blower portion of the HVAC system.
9. (original) The HVAC system of claim 1 wherein the at least one ultraviolet light source is operatively disposed in relative close proximity to an evaporator of the HVAC system.
10. (original) The HVAC system of claim 1 wherein the at least one ultraviolet light source is operatively disposed within a post-evaporator portion of the HVAC system.
11. (original) The HVAC system of claim 1 wherein the at least one ultraviolet light source is operatively disposed in relative close proximity to a heater core of the HVAC system.
12. (original) The HVAC system of claim 1 wherein the at least one ultraviolet light source is operatively disposed within a post-heater core portion of the HVAC system.
13. (original) The HVAC system of claim 1 wherein the at least one ultraviolet light source is operatively disposed within at least one air outlet of the HVAC system.
14. (original) The HVAC system of claim 1 wherein the at least one ultraviolet light source is operatively disposed in relative close proximity to a drain pan of the HVAC system.

15. (original) The HVAC system of claim 1 further comprising a plurality of conduits for communicating air to an inner compartment of the vehicle, the conduits having inner surfaces that absorb ultraviolet light, thereby preventing the transmission of ultraviolet light into the inner compartment.

16. (original) The HVAC system of claim 1 further comprising a plurality of conduits for communicating air within the vehicle, the conduits having inner surfaces that reflect ultraviolet light, thereby increasing dispersion of ultraviolet light within the HVAC system.

17. (currently amended) A method for treating microorganisms within an HVAC system of a motor vehicle comprising:

generating ultraviolet light from at least one ultraviolet light source within said HVAC system, effective to kill and prevent growth of microorganisms;
monitoring a state of a vehicle component that affects a vehicle power supply; and
selectively activating and deactivating the at least one ultraviolet light source, based upon the state of the vehicle component.

18. (original) The method of claim 17 wherein the ultraviolet light is in the UV-C spectrum.

19. (original) The method of claim 18 wherein the ultraviolet light is approximately 254 nm in wavelength.

20. (currently amended) The method of claim 17 wherein the ultraviolet light is generated by at least one ultraviolet light source which is selectively activated and deactivated according to a control strategy wherein the vehicle component is an ignition switch and wherein the state of the vehicle component is an ignition switch position.

21. (currently amended) The method of claim 17-20 further comprising:

monitoring a parameter; and
selectively activating and deactivating the at least one ultraviolet light source based upon the parameter wherein the vehicle component is an engine.

22. (original) The method of claim 17 wherein the ultraviolet light is generated in at least one air inlet of the HVAC system.
23. (original) The method of claim 17 wherein the ultraviolet light is generated within a pre-blower portion of the HVAC system.
24. (original) The method of claim 17 wherein the ultraviolet light is generated within a post-blower portion of the HVAC system.
25. (original) The method of claim 17 wherein the ultraviolet light is generated in relative close proximity to an evaporator of the HVAC system.
26. (original) The method of claim 17 wherein the ultraviolet light is generated within a post-evaporator portion of the HVAC system.
27. (original) The method of claim 17 wherein the ultraviolet light is generated in relative close proximity to a heater core of the HVAC system.
28. (original) The method of claim 17 wherein the ultraviolet light is generated within a post-heater core portion of the HVAC system.
29. (original) The method of claim 17 wherein the ultraviolet light is generated within at least one air outlet of the HVAC system.
30. (original) The method of claim 17 wherein the at least one ultraviolet light is generated in relative close proximity to a drain pan of the HVAC system.